

CLAIMS

1. A laminate to be served as seal film for sealing the electrolyte of battery or as protection film for protecting the electrode part of battery, comprising

a metal layer,

a surface-treated layer formed over the surface of the metal layer and

a layer of an adhesive resin of a polyolefin modified by carboxyl group or a group derived therefrom, formed over the said surface-treated layer.

2. A laminate to be served as seal film for sealing the electrolyte of battery or as protection film for protecting the electrode part of battery, comprising

a metal layer,

a surface-treated layer formed over the surface of the metal layer,

a layer of a primer coating formed over the said surface-treated layer and

a layer of an adhesive resin of a polyolefin modified by carboxyl group or a group derived therefrom, formed over the said primer coating layer.

3. A laminate to be served as seal film for sealing the electrolyte of secondary battery or as protection film for protecting the electrode part of secondary battery, comprising

a metal layer,

a surface-treated layer formed over the surface of the metal layer and

a layer of an adhesive resin of a polyolefin

modified by carboxyl group or a group derived therefrom, formed over the said surface-treated layer.

4. A laminate to be served as seal film for sealing the electrolyte of secondary battery or as protection film for protecting the electrode part of secondary battery, comprising

a metal layer,

a surface-treated layer formed over the surface of the metal layer,

a layer of a primer coating formed over the said surface-treated layer and

a layer of an adhesive resin of a polyolefin modified by carboxyl group or a group derived therefrom, formed over the said primer coating layer.

Sub 5.
A₂ 5. The laminate as claimed in any one of claims 1 to 4, wherein the metal layer is constituted of one or more metals selected from the group consisting of aluminum, nickel, copper, iron and alloys of them.

Sub 6.
A₂ 6. The laminate as claimed in any one of claims 1 to 5, wherein the surface-treated layer is constituted of a chemically treated layer.

Sub 7.
A₂ 7. The laminate as claimed in any one of claims 1 to 6, wherein the primer coating layer is that of thermosetting type based on epoxy, urethane, epoxy-urethane, imine, titanate, polyester or silane.

Sub 8.
A₂ 8. The laminate as claimed in any one of claims 1 to 7, wherein the adhesive resin is a graft-modified polyolefin resin obtained by graft-copolymerizing a polyolefin resin with an ethylenically unsaturated carboxylic acid.

9. The laminate as claimed in claim 8, wherein the graft-modified polyolefin resin is a graft-modified polyethylene resin or a graft-modified polypropylene resin.

10. A process for producing a laminate to be served as seal film for sealing the electrolyte of battery or as protection film for protecting the electrode part of battery, comprising

forming a surface-treated layer over the surface of a metal layer and

laminating on the surface-treated layer a layer of an adhesive resin of a polyolefin resin modified by carboxyl group or a group derived therefrom.

11. A process for producing a laminate to be served as seal film for sealing the electrolyte of battery or as protection film for protecting the electrode part of battery, comprising

forming a surface-treated layer over the surface of a metal layer,

forming a primer coating layer over the said surface-treated layer and

laminating on the primer coating layer a layer of an adhesive resin of a polyolefin resin modified by carboxyl group or a group derived therefrom.

12. A process for producing a laminate to be served as seal film for sealing the electrolyte of secondary battery or as protection film for protecting the electrode part of secondary battery, comprising

forming a surface-treated layer over the surface of a metal layer and

laminating on the surface-treated layer a layer of an adhesive resin of a polyolefin resin modified by carboxyl group or a group derived therefrom.

13. A process for producing a laminate to be served as seal film for sealing the electrolyte of secondary battery or as protection film for protecting the electrode part of secondary battery, comprising

forming a surface-treated layer over the surface of a metal layer,

forming a primer coating layer over the said surface-treated layer and

laminating on the primer coating layer a layer of an adhesive resin of a polyolefin resin modified by carboxyl group or a group derived therefrom.

14. A seal film for sealing the electrolyte of battery or a protection film for protecting the electrode part of battery, which film is made from the laminate as claimed in any one of claims 1, 2 and 5 to 9.

15. A battery comprising a seal film for sealing the electrolyte of battery or a protection film for protecting the electrode part of battery, which film is made from the laminate as claimed in any one of claims 1, 2 and 5 to 9.

16. A seal film for sealing the electrolyte of secondary battery or a protection film for protecting the electrode part of secondary battery, which film is made from the laminate as claimed in any one of claims 3 to 9.

17. A secondary battery comprising a seal film for

sealing the electrolyte of secondary battery or a protection film for protecting the electrode part of secondary battery, which film is made from the laminate as claimed in any one of claims 3 to 9.

18. A flexible package made from a laminate comprising

a metal layer,

a surface-treated layer formed over the surface of the metal layer and

a layer of an adhesive resin of a polyolefin modified by carboxyl group or a group derived therefrom, formed over the said surface-treated layer.

19. A flexible package made from a laminate comprising

a metal layer,

a surface-treated layer formed over the surface of the metal layer,

a layer of a primer coating formed over the said surface-treated layer and

a layer of an adhesive resin of a polyolefin modified by carboxyl group or a group derived therefrom, formed over the said primer coating layer.

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20. The flexible package as claimed in claim 18 or 19, wherein the metal layer is constituted of one or more metals selected from the group consisting of aluminum, nickel, copper, iron and alloys of them.

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21. The flexible package as claimed in any one of claims 18 to 20, wherein the surface-treated layer is constituted of a chemically treated layer.

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22. The flexible package as claimed in any one of

claims 18 to 21, wherein the primer coating layer is that of thermosetting type based on epoxy, urethane, epoxy-urethane, imine, titanate, polyester or silane.

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23. The flexible package as claimed in any one of claims 18 to 22, wherein the adhesive resin is a graft-modified polyolefin resin obtained by graft-copolymerizing a polyolefin resin with an ethylenically unsaturated carboxylic acid.

24. The flexible package as claimed in claim 23, wherein the graft-modified polyolefin resin is a graft-modified polyethylene resin or a graft-modified polypropylene resin.

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